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THE GENESEE FARMER.

SATURDAY, FEBRUARY 2, 1839.

SILK CULTURE.

Is it proper to give encouragement by legislation to the cultute of silk? This is an important question, one which the present legislature of this state will be called to act upon, and which we trust will be answered promptly in the affirmative. We shall here give some reasons for the belief that such aid should be granted without hesitation.

First—The success of the silk culture is of immense importance to the country in a commercial and financial point of view. From fifteen to twenty millions worth of silk are imported annually; exceeding, with the exception of woolens, any other single article in value. This sum might be saved to the country, by the successful introduction, and in all probability a large quantity raised for export. The sending abroad so much money, or any considerable part of it, must have a decided influence in the money market of our principal cities, and exert a corresponding influence throughout the country.

Second—The culture of silk is deserving of encouragement from the pleasant and beautiful employment it affords to females and children, who could not otherwise exert themselves as beneficially or profitably. It is the industry of the small farmer, and those who have little capital, that should be encouraged, and in no way, it is believed, can small means produce a more certain profit, than in the raising of silk. The rich can always take care of themselves; the industrious poor are the ones that most require encouragement.

Third—Other states are actively engaged in the introduction of the silk business among their citizens, and with the prospect of eventual success. No one will pretend that New York is not as able to offer encouragement,as Vermont, Massachusetts, Pennsylvania,and several other of the states; or that a large portion of her citizens would not be as much benefitted as those of the states named by its successful culture. Every new source of profitable culture, has required the aid of government to establish it on a firm basis; and many, which are of the most importance, receive a protection which amounts to a prohibition of every thing foreign. It is not unreasonable then that in the infancy of the silk business state legislatures should lend their aid in overcoming early obstacles.

Fourth—The success of the silk business, with such encouragement at the commencement, can no longer be considered problematical. Our climate is of the proper temperature and dryness—the worms rarely suffer from disease—the food can be grown in any quantity, and with the greatest certainty—and the implements required for domestic production are simple and within the reach of any one. Silk cannot be grown to any extent in Great Britain; the humid climate and low temperature are fatal to the worms; and that country alone would require three times the amount of raw silk for her manufacturers that this country will be able to send abroad.

Fifth—The culture of silk in the domestic way, which is the way in which we hope to see it prosper, is profitable. Mr. Smith of Baltimore, as good authority as the country affords on the subject of silk, asserts that an acre of the Morus multicaulis will feed a million of worms, which would give 333 pounds of cocoons, worth four dollars a pound. Fortunately the last summer has in several instances furnished proofs of what may actually be done with limited means, and the results have been most satisfactory. Mr. McLean of New Jersey fed 10,000 worms on the foliage from the sixteenth of an acre. These 10,000 yielded 31 lbs. 14 oz. cocoons. It was the opinion of competent observers that 10,000 more worms might have been fed from the same trees. But allowing only 10,000, or 16,000 to the acre, the product of silk according to this experiment would be more than 500 lbs. of cocoons from an acre; which, according to Mr. Smith's calculation, would produce silk worth some two thousand dollars. It may be remarked that the worm fed by Mr. McLean was mostly the 'mammoth white,' and of these cocoons "192 weighed a pound after the floss was taken off." If the labor to be expended on the culture of silk was to be taken from some other branch of productive industry; or if the business when introduced was to be of doubtful utility or profit, the propriety of legislative aid might well be questioned; but the above facts show that such is very far from being the case, and that if only one half of the above quantity was realized, there are few kinds of business, or the same amount of capital invested, which would yield a more ample remuneration. The production of the cocoons requires but a few weeks, and of course could not materially interfere with the other departments of farming industry.

The bill introduced by the committee on agriculture at the last session of the legislature, but not acted upon, would seem to give the aid required, and in the most proper manner, should it become, as we hope it will, a law of the state. The first section of that bill authorises the payment by the state, of ten cents on every pound weight of silk cocoons,the result of domestic industry, and produced in this state. The second section authorises the payment of fifty cents on every pound of reeled silk, to be produced from cocoons grown within the state. The third section requires statements from the persons offering the cocoons or the silk, of the kind of mulberry cultivated, the number of silk worms fed, the amount made, and a sample of the silk made. The fourth section prescribes the duty of the treasurer in making his annual report to the legislature, on the several subjects embraced by the bill; and the fifth section determines the time during which bounties shall be paid.

The object of the bill was to encourage the production of silk by domestic or household industry, and was, as the bounty in our opinion should be, limited to silk so produced. It is our belief that where the multicaulis is on hand, such a bounty would cover every expense of the production of cocoons, or, since the implements and processes of reeling have been so much simplified, the expense of converting the cocoons into silk in a marketable state, leaving of course the amount produced by the sales, as a clear profit to the producer. We hope to see the experiment tried, and the few dollars drawn from the treasury could not be more profitably employed, if by their use a new and lucrative branch of industry could be established among us.

COMMON SCHOOL LIBRARIES.

We are glad to perceive that the attention of the public is beginning to be directed to this point, and the importance of having books that shall communicate knowledge of a more practical cast, freely discussed. In our notice of the catalogue of books announced by the American Society for the promotion of Useful Knowledge, and recommended by the Superintendent of Common Schools in this state, we remarked they were all well enough, but still not such as we could have wished to see announced for such a purpose. General *History* is well, but the student in a common school requires something more definite. Four fifths of the children in our schools, are destined to be farmers, or the wives of farmers, and it to us appears a little unreasonable that *nothing* should be furnished by the state directly applicable to the business in which most of them are to be engaged. It is true it was said that in the continuation of the series, works on all practical interests of importance would be produced; nothing has yet been heard further on the subject; and we think the state would do well to ascertain that suitable books for common schools can be had before the money to be appropriated for their purchase is raised or expended. Fifty five thousand dollars a year for three years should call out a series of works, which, commencing with the simplest principles of agriculture and chemical science, should include all the information necessary to determine the character of soils, and the most approved processes of cultivation. The appropriation by the state is ample, and could only have arisen from a just view of the importance of giving an additional impulse to our excellent system of common schools, and it would be matter of serious regret, should the donation fail of producing the benefits that might reasonably have been expected from it. We are inclined to think as little should have been left to the discretion of the districts as possible; and the selection of the books by a committee of scientific, and practical men, should have formed part of the act of appropriation. For ourselves we firmly believe that such works as Davy's Agricultural Chemistry; Chaptal's Chemistry applied to Agriculture, and a work which should explain the duties of house keepers, and give directions for their proper performance, would be of more service to those for whom such libraries are intended, than works on history, or records of travels, interesting and instructive as these unquestionably are. In passing through life, things of present importance, and permanent and practical utility, should be first loooked to; those that are of less consequence may be left to follow as needed.

SOUND OPINIONS.

We invite the attention of the readers of the Farmer, to the following extract,which we venture to make from the private letter of a friend, the sentiments expressed in which would receive additional weight were we permitted to give the writer's name. The distinction between those farmers who read, and those who do not read, is yearly becoming more and more apparent; and the remarks of the writer on the best means of inducing inquiry, and awakening attention, are particularly deserving of notice. We have several times called the attention of our readers to the differences which must exist between the farming processes of this country and Great Britain, in many respects, owing to the discrepancy in climate, price of labor, and price of products, and shown that many of the modes, perfectly proper abroad, cannot be adopted here with any reasonable prospect of success. While we shall give to the readers of the Genesee Farmer, whatever may appear in foreign journals calculated to aid the cause of agriculture in this country, it is intended that these essential differences between the two sides of the Atlantic shall not be lost sight of, or practices recommended, unsuitable to the agriculture of our country. We intend that our work shall be American, adapted to its climate and its soils; but it will also be remembered, that our country embraces almost every variety of soil and climate, and is capable, in some one or other part of its vast extent, of producing nearly all the various cul-

tivated valuable plants found on the globe, and that we have readers in every state and territory, and nearly in every county of this wide spread country. But to the extract:—

"I feel assured that the first and proper step toward the advancement of agriculture, is to induce farmers to *read*. This once accomplished the onward progress will be astonishing. But how to accomplish this is the question. For my own part, I think every word addressed through your columns to this non-reading part of community is thrown away—it is like talking to the deaf—they never read it, and your *subscribers* do not require it; it is in fact so much waste paper! I would rather the space were employed in inciting those *who do read* the Genesee Farmer to do their duty to those around them, and through their intercourse with the prejudiced, try to remove the barrier to their instruction. Much, very much may be done, by each individual in his own neighborhood, to awaken a thirst after information, to induce experiment, to attempt improvement, and to encourage a social intercourse, by meetings, societies, clubs, &c. &c.

"I should like to see from the pen of your able writers suggestions to us who *do read* your valuable paper, how we can best labor to promote this desirable end—for until the farmer will read, you have no avenue open through which to reach him. Every thing in the habits and condition of the farmer are favorable to a healthy action of the mind when once its present inertness is overcome, and it is incited to exertion. That, it seems to me, is to be effected by personal intercourse, by frequent conversation, by interchange of opinion, by a well-tempered zeal on the part of those who *do* read towards those who do not read, by liberally offering to those around us our papers, our implements of husbandry, and the free use of our improved stock. We ought not to expect them to risque but very little of their hard earned gains, experimenting where they have no faith; in what to them perhaps appears absurdity.

"I need scarcely say, that with such views, I am very desirous of seeing agricultural schools established, and good class books, or manuals of husbandry, stock, wool-growing, &c., published at a low price for farmers. I observe through your paper some movement has been made in this matter. I view it as highly important; it will go far to overcome prejudice, or to confirm it, according to the ability, truth, and science with which they are written, and whether made with a view to American circumstances and climate, or whether we find such foreign husbandry introduced and recommended as will at once strike a practical and intelligent American farmer, with the usual allowance of capital and time, as unsuitable or absurd."

BEET ROOT SUGAR.

We publish the following report of an unsuccessful attempt to make sugar from the beet, in the hope that some of our readers will be able to furnish such directions as will enable the writer to detect the cuase of his failure. We have reason to suppose that many are trying experiments in the manufacture of Beet Sugar, and the publication of the details of any successful results would be gratifying to many of our readers.

Mr. Tucker—I regret to say that I have been unsuccessful in chrystalizing the Beet Sugar, *or rather syrup*. In the first experiment I dried the beet sufficiently for pulverizing, added boiling hot water, strained, and boiled down, without the addition of lime, or animal charcoal, but when the syrup was boiled sufficiently for chrystalizing, on cooling, it assumed a waxy appearance and still continues, having considerably of an acid taste. In my second, I used lime and animal charcoal, and white of eggs, but succeeded no better than the first in chrystalizing, but no acid taste. Now, was the fault in the process, or in the beet? During the drouth last season, the leaves of the beet nearly all decayed, but after the rains, a second and luxuriant growth of leaves came from those, besides they have sprouted some in the cellar. Under the most favorable circumstances I doubt that sugar from beet can be made as simple as the maple sugar, as alledged by some. I shall try again.

BADEN CORN.

Extract of a letter from a subscriber to the Genesee Farmer, at Economy, Indiana:—

"Last spring I planted two acres of the celebrated Baden corn—obtained the seed from the state of Maryland. It is certainly an improvement, and will be the only corn in a few years cultivated in this section of country. I raised one hundred bushels per acre of said corn. The drouth was unprecedented and curtailed the produce at least one third. Other kinds of corn on similar soil, with equal culture, did not yield more than forty bushels per acre. The Baden corn has from three to eight good ears on each stalk—one stalk measured seventeen feet in length, and others nine inches in circumference. Our latitude is parallel with Philadelphia. It certainly will be a great advantage to Ohio and Indiana, states that raise more hogs perhaps than any three other states in the Union."

Report of a Visit to Isaac Moore's Farm.

We were highly gratified with a detail of farming operations, while on a recent visit at the house of Isaac Moore, Esq. of Brighton, about four miles from this city. Mr. Moore we consider one of our most thorough-going farmers, and although he does not cultivate as much land as some others, yet we doubt whether there are many in this or any other part of our country, who realize greater profits from the same amount of capital invested in any agricultural pursuit, than he does; and as he was so obliging as to give us a general description of his farming operations, we publish them for the benefit of our readers.

It will be proper to observe that, in addition to the common farming operations. Mr. Moore has burned upon his farm, and delivers in this city annually about 25,000 bushels of lime, which will explain the variation of his stock from the more common proportions that are generally kept in this vicinity.

Mr. Moore informed us that he was not familiar with farming operations in early life, but that he commenced upon the farm whereon he now resides about twelve years since, which was then mostly new. Before this land was cleared up it was of that quality which is known as oak openings, and was considered so poor as scarce to be worth cultivating, yet such has been the success of his judicious management, that he now reaps as heavy crops as are produced upon those lands which were considered altogether superior before they were cultivated. The soil is what would be called clay loam, resting upon limestone at no very great depth. His farm contains two hundred acres, all under improvement, and suitable for the common rotation of crops, as wheat, corn, grass, &c. He has effected this change in the productive quality of his land altogether by a judicious rotation of crops, and the application of the manure made upon the farm, with the exception of plaster which he applies to his grass lands at the rate of about two bushels per acre each year, and a small quantity of vegetable manure which he carted one year from the city, but finding it too expensive he discontinued that way of manuring. His rotation of crops he varies according to circumstances. He sometimes breaks up his grass land early, and plants it with corn, which he succeeds the next year with a green fallow crop, then with wheat, and seeds down with timothy and clover. At other times he breaks up his grass land after planting, and treats it as summer fallow, harrowing it two or three times between the first and second ploughing; pastures it with sheep, and sows it with wheat, and stocks down with timothy and clover. He thinks it most profitable to break up his grass land after it has produced two crops.

During the time Mr. Moore has been upon his farm he has provided himself with a good house, barns, outhouses, sheds, pens, &c. all in excellent order. In one of his barns is a horse power threshing machine, and all the neceseary apparatus for threshing and cleaning his wheat and other grains.

In addition to the other buildings upon his farm, he has a fine cottage-looking, one and a half story house, neatly finished for an independent school, in which about twenty-five children are instructed, including his own, which he observed improved much faster than when attending a public school. He has planted an apple orchard, which produced the past season 500 bushels of the first rate cultivated fruit. His fruit and kitchen gardens are arranged with good taste and are plentifully stocked with choice varieties of fruits and such vegetables as abide the winter. In his fruit garden, were cherries, peaches, plums, quinces, gooseberries and currants, in abundance, and also a fine bed of strawberries, all of which he informed us had produced bountifully, and more than was required for the consumption of his family. In his kitchen garden we were shown an asparagus bed of liberal size, more than sufficient for furnishing a family with this delicious vegetable from early cutting until the season for green peas to be in perfection. We think that every farmer who consults his own comfort, or that of his family, should, at the earliest period possible, plant out a bed of this *invaluable* vegetable.

The stock upon his farm consists of ten horses, a part of which are young; three yoke of oxen, five cows, about 300 sheep, half blood merinos, twenty-five store hogs of fine size and choice breeds, and poultry in abundance. From his horses he informed us that he had that day sold one pair (we think) for $220 00.—Oxen and cows he only kept what was necessary for the family and use of the farm. From his sheep he observed he had sold many, and that the average weight of wool produced last shearing was 4½ pounds, which brought him 35 cents per lb. His sheep were fed progressively over his grass lands with hay, which for this purpose was thrown upon a wagon and taken to the field and distributed.

His hogs were mostly of the breed known here as the Byefield. He informed us that he fattened and butchered yearly about 15,000 pounds of pork, and that the weight of his hogs when butchered ranged from three to five hundred pounds. The management and fattening of his hogs were as follows:—As soon as his clover pastures were sufficiently grown, they were turned into them, where they remained without any other food until after harvest, when they were turned into the wheat stubble, and allowed to remain there until they had eaten all the scattered wheat; after which they were fed with pumpkins and potatoes, boiled and mashed, during the first half of their fattening; they were then fed with boiled peas once each day until about one month before killing, when Indian meal was mixed with boiled potatoes, and they were fed also with corn.

In conversation with Mr. Moore respecting the ravages of the wheat worm, he gave it as his opinion that his crop was injured about ten per cent, and that the crop, in all cases where the worm has made its appearance, should be threshed as soon as it can be made dry enough (by setting it up in shocks as they are termed) in the field.

With regard to the cultivation of corn, varieties, &c. he observed that he preferred to have his corn hoed twice and the cultivator run through it at least twice more. He tried the Dutton corn but did not like it.

In speaking of root crops, he observed that he had tried the different ones, as ruta baga, mangel wurtzel, carrots, &c. but that he was convinced that potatoes were the most profitable root crop that could be cultivated, taking into consideration the certainty of the crop, the various ways in which they could be stored, and their nutritive properties when fed to stock of any description. He gave the preference to the orange, round pink-eye, and flesh colored, for stock, and the flat or common pink-eye, and the mercers, for the table; and

mentioned that his mercers had yielded nearly as well the past season as the round pink-eyes. He has several other varieties on trial, the result of which he intends giving hereafter.

The following were among the items mentioned as the produce of his farm the past season:—Wheat 1000 bushels—Corn 300 do.—Oats (a short crop) 100 do.—Potatoes 700 do.—Carrots 200 do.—Apples (choice) 500 do.—fifty tons of hay.

Having enumerated his leading products, we hope he will pardon us for making a rough calculation by the way of inquiring into his receipts. In doing this we will only take into consideration some of the leading articles, such as we presume have, or may be disposed of, and at prices which have or may be received:

25,000 bushels of lime, at 15 cents,	$3,750
15,000 pounds of pork, at 7 cents,	1,050
1,000 bushels of wheat, at $1 37½	1,375
200 bushels of apples, at 50 cents,	100
1 pair of Horses,	220
	$6,495

We did not make the inquiry of Mr. Moore at what price he disposed of his wheat, but have since been informed that he disposed of it early at about the price we have calculated, although it has been much higher since; neither, did we inquire the exact amount of pork which he marketed this year, nor the price received, but have calculated what he assured was his average quantity. There is no doubt but had we continued our inquiries we might have added many more items to our list of sales, but had we increased our figures we might have engendered feelings rather anti-republican, which is foreign to our object, but truly when farmers can so conduct their business as to receive four, five, or six thousand dollars, after supporting families in the princely style in which many of them live at the present time, their occupation, of all others, must be the most desirable. ¶

TO CURE SMOKY CHIMNEYS.

Before a remedy can be understandingly applied to smoky chimneys, it is requisite that the causes of the evil be properly understood. The draught is caused by the specific lightness of the heated air contained within the chimney. When this air is cold, it of course has no tendency to rise, being precisely of the same weight as the surrounding atmosphere. But when it becomes heated, its weight is diminished, and it ascends; and the *force* of the draught is just equal to the difference between the weight of a heated and a cold column of air contained within the walls of the chimney. Therefore the draft is increased by enlarging the chimney, as this makes the difference greater, the throat remaining of the same size as before; or it is increased as the height of the chimney increases. Hence short chimneys often draw much better by being built higher. The pipe of a cooking stove in a cellar kitchen rose but a short distance above the top of the stove, before it bent horizontally and entered the large brick chimney; this was rendered necessary by the lowness of the ceiling. The draft was consequently very imperfect. But when a foot in height was added to the pipe, the ceiling being protected from the heat by a broad piece of sheet iron curving upwards and placed upon it, the draught was greatly increased.

A frequent cause of smoking is the large size of the throat of the chimney, or that part immediately above the fire place. To cause a swift draught, the chimney should suddenly enlarge immediately above it. Then, though the ascending column of hot air may rise with but moderate velocity, a rapid current must rush through the throat to supply its place. But if the throat be as large as the chimney this current will not be any swifter than the ascending column. And the upward motion of the latter will be still diminished in consequence of the slowness of the fire from want of draught. The draught may be much increased by building the fire place low; that is, by bringing the throat near the fire, as the current is then stronger upon the burning fuel and produces more rapid combustion. But if the throat is brought too near the fire, the draught will be too strong, carrying the heat up the chimney, and therefore a medium must be observed.

The annexed figures represent sections of a chimney on a common and objectionable, and on an improved construction. In the former, fig. 9, the throat is of the same size as the chimney above; in the latter, fig. 10, it is diminished to about one third the width of the chimney above, and it should never be greater than in this proportion. At the upper end of the throat, the back wall should terminate abruptly, and not sloping as is usual, which will diminish the danger of the smoke being forced downwards through the throat by wind blowing in at the top. If the front wall is thick, it should be rounded off inside as in fig. 10, that the current of air which passes horizontally from the room, may *gradually* bend its course upwards, and unsteady currents be prevented.

(Fig. 9.) (Fig. 10.)

Chimneys which are found to draw well in calm weather, often become very troublesome during the prevalence of strong winds. This is in consequence of the roofs of adjacent buildings or surrounding hills changing the horizontal course of the wind to a downward direction upon the top of the chimney; and where this downward velocity is greater than the velocity of the ascending current of heated air, the latter will be driven back, and smoking will follow. Sometimes it is only while winds are blowing from a particular quarter, that the chimney will smoke. Thus, a chimney drew remarkably well when the wind was west or north-west; but when it changed to the south, the room was filled with smoke. On the west there was a broad lake, and the horizontal direction of the wind was not changed, but hills rose gradually on the south, and the consequent deflection of the currents of wind was the cause of the evil. Where adjacent buildings are the cause, the evil may be sometimes remedied by increasing the height of the chimney; but where this will not avail, a turn-cap must be attached to its summit. One constructed to draw well in ordinary cases, will be less liable to this evil from the causes just mentioned, than those improperly built.

It is obvious that a chimney cannot draw well, unless a sufficient current of air is admitted to the room; hence in tight houses when windows and doors are shut, the draught is very imperfect, but is at once greatly increased by the admission of the air. This, of course, is the only remedy in such cases; and it is in common best effected by depressing the upper sash of a window about half an inch or inch; or still better by admitting the same quantity of air from over the upper sash of *several* windows. A current of cold air admitted *below*, causes a chill about the feet which is not felt when the cold air enters above. In the latter case it descends gradually by its greater weight through the air of the room, and becomes thoroughly intermixed with it, before striking the surface of the body.

Sometimes a chimney smokes on first kindling a fire, but not afterwards. This may be remedied by heating the column of air above by burning paper, shavings, &c. until the burning fuel causes a sufficient draught. Kindling the fire gradually, is also a remedy.

Disappointment frequently results in conducting smoke from stoves through pipes horizontally, where the ascent is but little. As the smoke and heated air rises by its specific lightness, wherever it is to be conveyed to a considerable horizontal distance, it must rise, before, or afterwards, to a proportionate height, as its lightness is no assistance to carrying it in a horizontal direction merely. A correspondent in a former volume of the Genesee Farmer, speaking of the attempt to convey *heated air* for warming rooms through horizontal tubes, justly remarks:—

"Heat has such a strong tendency to ascend vertically, that but little will pass through tubes laid in that manner. Hence rooms that are directly over the furnace are made uncomfortably hot, while those which require the heated air to be sent laterally only eight or ten feet, are scarcely warmed at all."

He adds another fact worthy of observation:—

"One of my neighbors has as a kitchen stove which had so little draught as to be nearly useless for heating the apartment, until the stove pipe for convenience was extended into the third story, when the draught was so much increased as to enable him to burn damaged or half-decayed wood in it, and to make the room comfortably warm."

Other similar instances might be given, all tending to exemplify the principles alluded to at the commencement of this article. A simple attention to those principles, and their application, will explain every case which might be adduced, and lead to an appropriate remedy. J. J. T.

THE HESSIAN FLY.

Our readers will recollect that upwards of two years since, we published a paper from the pen of Dr. Jefferson Shields upon the Hessian fly, and that in that communication, the reader was induced to conclude, that the Dr. intended to favor the public with a pamphlet upon the subject. Since that period, we have heard nothing from him upon the subject, until a few days since, when a friend placed in our hands the following memorandum, which we give to our readers knowing that a deep interest is felt upon every thing connected with this destructive insect:

"Dr. Jefferson Shields states that the Hessian fly commences the deposite of the egg on the 25th of April to the 5th of May;

2d. From 29th June to the 5th of July;

3d. 20th September to the 10th of October—1-10th remain in a chrysalis state to the next generation—(one tenth) they deposite only in the stalks of wheat, barley and speltz.

The October deposite of eggs by the Hessian fly, is made just above the first joint, which frequently will be one and a half inches under the ground. The April deposite is made at the first joint just above the ground; the June and July deposite are made next the top joint, in the under wheat that shoots up in June; in this under wheat, the insect is preserved, until September and October wheat has made its appearance above ground.

Copy from a piece furnished me by Dr. Shields in his own hand writing."—*Farmer & Gardener.*

Beware of Imposition!

The high price of Mulberry Trees has caused dishonest men to sell every thing almost in the shape of young trees, for Mulberry. When in the shape of cuttings, it is difficult to determine their character, and even after the leaves are off, it is next to impossible to decide the kind, even if it is a Mulberry tree. Yesterday we were shown some Bass Wood cuttings, which had been sold by some strolling vender of trees as *real mulberries.*—We have heard of other cases, where large sums of money have been paid for genuine trees, which have turned out to be some other shrub, or at best only a spurious variety. Those who wish for trees should purchase of regular dealers, or persons in whose integrity they can confide. But if they are such consummate fools as to do otherwise, they must not complain if they do buy a *humbug* kind.—*Northampton Courier.*

Morus Multicaulis.—The N. Y. Journal of Commerce says—"The trees which bear this learned name, continue to be great favorites. At an auction sale today, they brought 37 1-2 cents each, about five feet long, and with all the precious buds trimmed off."

The navigable canals in England exceed 2000 miles in length. In Ireland, both the navigable canals and rivers do not exceed 400 miles in length.

COMMUNICATIONS.

IMPROVED BREEDS OF SWINE.

The production of pork is one of the most valuable and important staples of the farmers of the United States; and the swine of our country are scarcely second in value, as farm stock, to the entire amount of its neat cattle. Besides converting the offal and coarser and less valuable of the farm products into a marketable commodity in the feeding of swine, the richest and most luxuriant grain of the country is usually devoted to their preparation for market; and throughout the whole interior, in the pork crop of the farmer is combined the surplus of his root cultivation, and the net proceeds of his coarser grains: the gross result of all depending on the final proceeds of his pork account.

This is a very important matter for the farmer. The entire *modus operandi* of rural economy is more or less concerned in a subject so interesting in its results of profit or of loss; and is entitled, I fancy, to infinitely more consideration than is usually bestowed upon it.

With most of our farmers, even at the present day, particularly in the western country, among that numerous and wide-spread class whose principal dependence is on their pork crop for reward, a hog is simply a—hog—the name comprising all of excellence in the animal necessary to produce the article of pork required. The *brute* in question, for it deserves no softer name, is indigenous to the country. It exists in the streets of our cities, in the highways of our ordinary farming districts, and in the forests of the west and south—and in every cornfield and potato ground too, of the regions which they inhabit at all, provided the fences enclosing them be not remarkably close and of extraordinary height. Their chief excellencies are, the possession of a surpassingly active and vigorous lever power in the poll and snout, acting by an ingenious co-operation of the spinal and nasal muscles; a celerity of speed, equaled only by the fox, or the hound, in a chase; and an indomitable propensity to all evil, conclusively illustrative of their lineage from a conspicuous race of scripture date. And this is the material from which is produced, in more than three-fourths of the United States, and indeed in almost the entire continent of America, the vast supplies of pork which are annually sold, purchased and consumed in the land!

Important improvements, and wonderful changes, have been introduced in most of our breeds of domestic animals and farming stock; but less in our swine than in any other. Why this universal neglect in the improvement of an animal furnishing us with our richest meats, and adapted to consume, in the most profitable manner, not only to the farmer, but to the common house-keeper, the offal of both the harvest and the kitchen, is not easy of answer, unless it be that its remarkable propensities of shifting for itself in its semi-savage condition, render it more acceptable to those who consider that every thing pillaged from their neighbors, or from the public, is so much direct benefit to themselves. This perhaps is an uncharitable solution of the problem; but I feelingly appeal to those who, having a due regard to neighborhood comfort, and to individual right, if any other reason will account for the legions of miserable, starved, and mischevious brutes running at large, disgracing the name of even a——hog, and infesting almost the entire land.

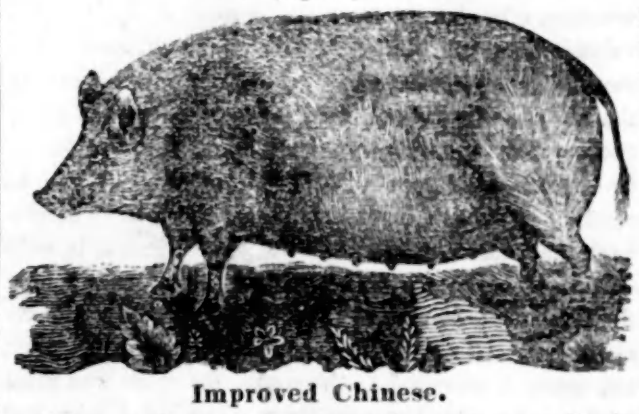
Nor are the characteristics above named the only objections to the common swine of our country. They are huge and gross feeders; equally gluttonous in offensive animal offal, even to carrion, as in vegetable food and grains. Measured by well chosen and approved physiological rules, and none other will or can be admitted by true economy, utility, or common sense, the animal in question will be found utterly inadequate in comparison, to the main purposes of the farmer or housekeeper for profit. From fifty to one hundred per cent more food, as the case may be, is required to make a given quantity of pork of inferior quality, both in taste, and marketable varieties, from the common hog, than is required in the improved breeds of our swine. This fact has been so often demonstrated that it needs no further confirmation, as all those who are conversant with the subject will readily testify. My own experience for many years is satisfactory on this point, and with all intelligent men, and practical farmers, no doubt exists upon the subject.

Within the last three or four years, the public attention has become much awakened to the necessity of a reform in this important branch of agriculture, and following the rapid spirit of improvement in our neat stock by the importation of many valuable breeds of short horn cattle from abroad, and their dissemination throughout our country, the better and more approved breeds of swine have been eagerly sought after, and to a considerable extent introduced into many sections of the Union. Among our truly intelligent and thrifty farmers, the spirit of acquisition in all *improved* breeds of animals was never so active, and I imagine that it only needs the dissemination of fact and information among them, to draw their attention yet more closely to it.

So important does the question of a thorough improvement in the swine of the United States appear, as connected with not only the quality of our pork, but as a means of the absolute saving of hundreds of thousands, if not millions, of dollars annually to our farmers, that, since I have commenced the subject, I feel disposed, even at the expense of prolixity, to speak of some of our most approved breeds of swine; yet I shall discourse of nothing but such as I know and have tried by actual demonstration, and such as I can with entire confidence declare to be worthy of attention.

As first among the most desirable breeds, I name the

(Fig. 11.)



Improved Chinese.

These animals, *in their purity*, are exceedingly scarce in the country. They may exist in several parts of the United States, but I know of them now at only one farm in this region. I first purchased a pair of Caleb N. Bement, Esq. at Albany, in the fall of 1833, he having obtained them of Mr. Dunn of that city, who, many years before, procured the breed from New Jersey. At the time I purchased these of Mr. Bement, he had many others of the kind, and I then thought, as the fact has since proved, that he placed altogether too low an estimate on their value as an *original stock* for the improvement of other breeds. That gentleman has for some years past, I believe, been entirely out of the breed, having turned his attention almost exclusively to the breeding of Berkshires.

The principal and most important characteristics of this breed are, their exceeding quietness of disposition and habit; round and perfect proportions; tolerable length of body; delicacy of bone and limb; smallness of head, legs and feet; lighter in the offal parts than any other breed whatever; and a propensity to take on fat to a greater extent with less food than probably any other animal in existence. They are in fact the *beau ideal* of hogs! In size they are only middling, weighing at nine months old from 180 to 200; and at fifteen to eighteen months, 250 to 400 pounds; depending much upon their previous keep and fattening. Of the original pair which I purchased, the sow still survives, a good breeder, weighing in fair condition about 200 pounds. The boar, at the age of four years, was over grown with fat, and useless, although kept only on grass in summer and with low food in winter. He died when five years old, and his usual weight was about 400 lbs. One of their descendants is now four years old past, and has arrived at the same condition, being useless for breeding purposes. Numbers of their progeny have been scattered far and wide over the country. I bred many of them on my own farm, but the calls were too incessant for me to part with them, and not being conveniently located for their distribution, I parted with nearly my entire stock a year or two since, to Mr. A. B. Allen, who has bred them extensively for sale on his farm on the Niagara River, two miles below Black Rock. I have fatted many of this breed, mostly mixed with English blood, and a few full blood, and I never made pork with equal economy, and of such perfect quality as from these. It is the breed, slightly mixed with some other, that I would always select for the purposes of my own farm, and I feel warranted in saying, without fear of contradiction, that a cross of the China is the most valuable of any other in the country for economical pork making.

With all their perfections they are objected to by some; and entire frankness in the matter demands that their objections should be noticed. The first of these is, their want of size. That has been already stated. It is not an objection in my view. If they had longer legs, which would spoil them, this objection would not be so apparent. Others object to their lack of hardihood and want of constitution. If an entire absence of hog-like ferocity, and the greatest amenity of disposition of which the animal is susceptible, together with the love of a warm and snug shelter in the inclement season, instead of a wild burrow in a fallen tree top, or an ability to *burglar* itself into luxury at any sacrifice to its owner or his neighbor, be faults, then truly have the China pigs most grevious ones; for they love a shelter and a home in winter; and it is dangerous to life for their young to come into this breathing world in very cold weather—the first of April to the first of May being early enough for a litter of *full* bred China pigs to see the light. I know of no other vices with which they may be charged, unless it be *the lack of bristles*, and a total aversion to run, or to jump a fence, even two feet high, or to be rapidly driven. The sows are universally good and careful nurses, having from six to nine pigs, rarely ten at a birth; which, if decently fed, they raise with abundant ease. Indeed, I know of no *fault* with the *pure Improved China Hog*: and still, I consider them, with all their good qualities, in their purity, not exactly the animal for the pork making farmer. Were I to direct him what to do to raise his breed of hogs to the greatest pitch of excellence, I would say—no matter what his breed may now be, if not of the approved varieties—in the Northern States, where his stock is fed in pens, with ground or cooked food—"Cross your stock with China, and keep crossing it, no matter how high, until they fail in size or vigor, and then go to the Berkshire or something else; but still, let the main ingredient of the animal be China blood." The continual tendency of hogs, as of most other animals is, without great care, to deteriorate; to grow coarse and *wasty*; and I know of no cross which so readily brings them back into snug and correct proportions as the China.

I have had various crosses of these upon other breeds of swine, and I have never known an instance where they were not improved by the China blood. The size of the crossed China is large; frequently double that of the pure blood, varying from three to four hundred pounds at eighteen months old, and *always* excellent. Even in the first cross upon the wild woods hog, the produce is astonishingly altered, and the second makes an admirable animal, with great constitution and hardihood, accompanied by the quiet disposition and fattening propensities of the parent China. More need not be said in praise of the China hog. Since I first obtained them, by judicious selections they have been

continually improving in their appearance and good qualities, and I fearlessly challenge the country for finer specimens of Chinese swine than can be shown from my former stock, now at Mr. A.'s farm.

If I have placed the China pig *first* in estimation, it is because I think him better fitted than any other to *improve*, as a first cross, the condition of our country swine generally; but for some purposes, and in the opinion of many of our farmers, particularly the large grazing and pork feeders of the west, the

(Fig. 12.)

Berkshire Hog

possesses properties of far greater attraction. In the description of this animal, I shall claim for him no refinement of character, or particular placidity of temper; for, so far as I have been acquainted, he is as much of a hog as any other variety within my knowledge. These have been so often and so well described and figured in the agricultural papers by my friend Bement, of Albany, who has a large herd of them, that my account will be a short one. Their main properties are, larger size, weighing from three to five hundred pounds at eighteen months and two years old; and at a much earlier age I should not think they would so profitably fatten; great vigor, constitution, and muscular action; but withal, an aptitude and quickness to fatten rarely equalled in most other large breeds; extraordinary length of body; breadth of carcass; light offal; large, well shaped ham; and in fine, an excellent pork hog. They are a darker spotted than the China, being in most cases nearly black, but without bristles, or with very slight ones. The sows are prolific breeders, having from eight to fifteen pigs at a birth. They have the usually ravenous disposition and character of the common hog, sometimes devouring not only their own young, but whatever other feeble and inoffensive small animals may come within their reach. They are good nurses, and a sucking Berkshire pig can rarely be excelled in beauty by any creature of the kind. They are strong, and coarse feeders; exceedingly hardy; good travelers (a desirable quality for the western country, where the farmer drives his fat hogs to market instead of butchering them at home); are remarkably well calculated to follow fatting cattle through the corn fields, and to thrive on roots and coarse grains. They have obtained extensive celebrity on account of their great size, and other good qualities, and are, beyond question, with those who desire *extraordinary large*, as well as fine animals, the best *pure blooded* swine in the country. They have an increasing popularity; are sold in many instances at enormous prices, and will probably be multiplied, as they ought to be, throughout the United States.

Yet good as are these animals, they can be much improved by a cross of the China. They are antipodes in character and disposition; but each possessing excellencies of a peculiar and desirable kind, and when mingled, with a cross of the Berkshire boar and China sow, the produce is the most perfect that the swine family, numerous as it is, can boast. I have had them, and have seen them elsewhere extensively crossed, and always with entire success. To the China is added, size, vigor, hardihood, and length of carcass; and to the Berkshire, docility, quietude of habit and disposition, delicacy of bone, limb and muscle, and a remarkable propensity to fatten—in fine, the best hog in the world! I never have yet witnessed such beautiful specimens of the swine family, as those of the Berkshire and China cross. When once made, it may followed up on either side, according to the fancy of the breeder; but let the cross be made either way, it cannot be amiss. I would therefore say to the farmer, if you would have the finest of hogs and the best quality of pork, procure both the China and the Berkshire, and you can never be at fault in possessing a perfect breed.

There is still another variety of swine which exists in this neighborhood, and which I deem too valuable to omit a passing notice of, while discussing this important matter. Their origin is partly owing to accident, and partly to my own love of innovating, as they were first produced upon my own farm, and have since been so successfully bred and substantiated as to claim the merit of a distinct variety. They originated from a cross with a most valuable large white English breed, and the improved China. They were bred several years on my own farm, where some of them now remain, but they are principally kept as breeding stock, together with the China and Berkshire varieties, by Mr. A. B. Allen. He has given them the appropriate name of the

Tuscaroras,

and by a careful and judicious system of selections and breeding, he has brought them to great perfection. They combine in all particulars, except in delicacy and fineness of bone, the good qualities of the China. They are longer bodied, nearly double their size, yet smaller considerably than the Berkshire, and will weigh 300 to 500 lbs at eighteen months old. They fatten equally as well when six or nine months old as the China, are lighter colored, being u ually light spotted, the white predominating. They have the tranquil pleasant habits of the Chinese, without the uneasy, predatory propensities of the Berkshires, and are in all particulars just what the farmer of our Northern and Middle States would desire for a good stock and pork hog.

In fine, I do not know that I can better conclude this long story, than by saying, that in small and delicate breeds the China is the most perfect; in the large and grosser sorts, the Berkshire is decidedly preferable; but, for a *good, honest, quiet, every day hog*, the Tuscarora is, after all, equal, if not superior to either. At any rate, if you possess nothing but the common breed, try one or all of these, and you cannot but be essentially benefitted. A notice of other varieties must be left for a future paper.

Ulmus.

FEEDING HOGS.

Mr. Tucker—I have no antipathy against the improvement of the breed of hogs; but I must say that I think there is as much to be observed in feeding, as in the breed. People in general undertake to feed too many hogs. I had but five last summer, which run in the pasture with the cows, from about the first of June until the 12th September. I then confined them in a small lot with a good stye attached to it—some water and mud in the lot. Commenced feeding with boiled potatoes and peas—25 bushels of potatoes, then peas soaked from 12 to 24 hours, occasionally giving a few ears of corn until the 28th of November, when we killed them, and their average weight was 333 lbs. I salted what we wanted for our own use, and sold the remainder at $8 per hundred. My practice is to feed only three times a day, and if any thing was in the trough, be sure to make it clean before putting any more swill or food into the trough. No person was allowed to call them from their bed, except at meal times.

David Chaffee.

Onondaga, Jan. 1839.

Mulberry Trees.

Winthrop Buck, Esq., of Wethersfield, sold 100 mulberry trees, a few days since, for $400. The raising of trees at this price, must be profitable. We have two of the Morus Multicaulis trees growing in our office, which were presented to us last October by Geo. Olmsted.—They are now about six feet high having grown about two feet this winter and put forth new leaves and cuttings. They are larger trees than those in the above lot which were sold for $400.—*Hartford Courier.*

From the Franklin Farmer.

Breeding Young Heifers.

The author of the treatise upon British Cattle, published under the superintendence of the Society for the Diffusion of Useful Knowledge, has strongly reprobated the practice of breeding heifers at an early age. Some of his arguments are plausible, and his assertions are strong; and Lawrence, in the Farmers' and Graziers' Guide, says the practice of breeding early, "destroys the stamina of the animal's constitution, entails a feeble and unhealthy issue, exhausts the powers of the devoted animal, and not only shortens her life, but occasions many and serious disorders."

Now if the size and appearance of a two year old heifer are to determine her value, I would readily admit that at two or three years old, the one that has had no calves will appear finer than one that has bred. But this is not the case at five years old; and all my best milkers are cows that had calves at two years old:—So that we lose nothing in size ultimately and gain greatly in milk. I might say that whenever we wish to give strength to any system of vessels, or muscles in the animal economy, they should be brought into action in early life.

The breeders of the improved short horns have found the great disposition to fatten, to interfere with their breeding; and breeding early is the best preventive for two reasons, namely, a part of the nourishment necessary to make flesh, that would be accumulating during the second year, goes to the nourishment of the calf (fœtus) before it is produced, and afterwards, in preparing milk for it. The largest cows on my farm had calves at two years old, and I see no appearance of their having been injured by their early breeding. I could give many cases in the stock of other persons, but will content to give one to prove that it does not shorten their lives, or injure their constitutions. Mr. Charles Carr's cow, Mary Ann, had her first calf when thirteen months old, and continued breeding until she was twenty years old; and at twenty-one years of age she was fattened and slaughtered, and made very superior beef. I have had no heifer to have any difficulty in calving, except in one case, when the presentation was wrong; but my heifers have all been bred to thorough bred bulls, and their produce is not as large at birth as from the bulls we formerly had among us. I would however bespeak for the heifers that are bred early, good and generous keep.* Let them be fat enough when they have their calves to afford to lose the flesh which will be necessary to make the milk to sustain the calf without being reduced to a skeleton. And those that wish to have milkers, should pay particular attention to having the heifers well milked; for if they are neglected with their

* A letter from Dr. Martin, received since the foregoing communication was forwarded us, says:—"I am afraid my article on early breeding will do harm, if its recommendations are practiced without good keep to the young heifers." Although our own opinions and practice coincide with those expressed in the above communication, we would be glad if those who differ in theory, or practice would discuss the subject in our columns. The *philosophy* of the subject may be ably argued on both sides; but an accumulation of *facts*, in favor of, and against the practice of early breeding, would render a useful service to the cause of improved breeding. To make a breed of milkers, we should, in our own practice, breed at an early age; to make a breed of *fat beeves*, arriving at early maturity, we should defer breeding till the heifer was three years old, so as to calve at four. But we do not offer our opinions or practice as an example to others. Perhaps we may be wrong in both; and we feel desirous to see the whole subject fully discussed. But we *do think* that some of our large breeders are pursuing some grievous practices, which will have no favorable effect upon the future character of the cattle of the country. We had long ago thought of the propriety of attacking some of these practices; but there is such a fever among the breeders, that, however impartially or philosophically we might view the subject, some of those, whose practices we might condemn, would consider us hostile to their individual interests. We have already suffered such unjust imputations; but time—and we trust a short time—will, we doubt not, demonstrate to all the breeders, the propriety of seeking after and endeavoring to improve *all the valuable and desirable qualities of cattle.* At present, too many are breeding for *large fat cattle* without reference to the milking property. As soon as the price of Durham cattle begins to decline seriously, we shall see that hundreds of breeders will wish they had cultivated the milking property in breeding; and if the milking stock then does not command a better price than the mere beef stock, we will acknowledge that we are neither a prophet, nor the son of a prophet. But we wish our readers, who entertain opposite sentiments, to defend their own opinions; and we tender them our columns for the full discussion of the subject.—*Ed. Fr. Farmer.*

first calves, no care will ever make good milkers of them afterwards. A cow that is dried of her milk early with her first calf, will be disposed to go dry at the same period with her next. From the above and many other reasons that might be given, I am of the opinion that heifers should be bred at such a time as to have their first calves when about two years old.

SAM'L. D. MARTIN.

From the New England Farmer.

Beet Sugar.

We were prepared to reply to several correspondents, who have honored us with their letters of inquiry, and to acknowledge other favors, which we have received, but the importance of the subjoined communication induces us to exclude everything else, that we may lay it before our readers. The memorial should have been inserted at large had it been sooner received; but it shall be given hereafter, as being one of the most valuable documents in an agricultural view, which has ever been laid before Congress or the country. The extract given is from the correspondent of the N. Y. Morning Herald; but having read the memorial itself, we found that we could not make a more correct abridgment.

France, the last year produced 110 millions of pounds of beet sugar, which was an increase of nearly 20 millions upon the product of the preceding year. The interest is an immense interest. England is following her example. Russia is already far advanced in this indigenous production. Germany, where the discovery of sugar in beets was first made, is in the rear of some other countries; but is becoming alive to the great importance of this manufacture. The recent discoveries by which the process of manufacture is so greatly simplified, the time of the conversion of the saccharine liquid into refined sugar so much shortened, three days being sufficient for that purpose, and the cost of the manufactured article being reduced from 16 to 7½ cents a pound, are immense advances. The great fact that Europe will be able to supply its own sugar at a far less cost than it can now import it, that every part of the United States will likewise produce its own, and that the process is so much simplified that every farmer can make his own sugar as easily as he can brew his own beer, or make his own butter, are most material facts.

The discoveries of our friend at Stoneham, which we announced the last spring, seem to have anticipated all these results. As we saw that operation, then we have no doubt of its practicableness and success. He has secured a patent for his discoveries and for the invention of a machine by which the beets are to be sliced. This machine we are disposed to believe will work well; but it remains to be proved. This gentleman, we understand, is still experimenting in his beet-sugar laboratory. When he will be ready to give his discoveries and inventions to the public, we cannot say, and dare not predict. These old bachelors who have grown grey in their celibacy, are quite incorrigible. They are never quite ready for action. We have had some thoughts of sending a committee of ladies after him, who, from what we promised last spring, have been waiting for some of his sugar to put in their tea; but on second thoughts we ate afraid that such an experiment might prove fatal to whar he has already done. It no doubt would greatly alarm him. In the meantime Schuczenbach's method is already in successful operation at Northampton; and the discoveries since made in Europe by their distinguished chemists, and the New Orleans saccharometer will soon be among us; and we shall have no leave to ask of any patentee, when, where, and how to make our sugar.

Pumpkins have likewise been tried with perfect success in the manufacture of sugar. Another most important fact, wnich has hitherto been strangely overlooked, is, that Indian corn in its tasselled state contains half as much sugar as the sugar cane.

The effect these discoveries are destined to have upon commerce cannot be foreseen. The bearing they will have upon slavery in the West Indies is most portentous. The revolutions of society seem daily to acquire a new impetus; and we find in the morning nothing in the same place we left it at night. H. C.

"The first discovery of the chrystallizable sugar in the beet root, was made by a German chemist, named Margraf, in 1747, which was communicated to the Royal Academy of Sciences at Berlin. This discovery remained without further experiment until 1796, when Achard repeated the experiments, and erected the first manufactory at Kunnem, in Germany. The process of Achard was re-examined, simplified, and made more practicable, in France. From various causes, such as the costliness of the manufactories, the unproductiveness of the soil, and the scarcity and high price of fuel, &c., the results were not satisfactory, and the opinion generally prevailed that the extraction of sugar from the beet, though correct in theory, was impracticable on a large scale. The political events of 1812, however, hastened the developement of this new branch of industry, and the French government gave great encouragement to the manufacture of beet sugar, by establishiug four large manufactories and five chemical schools for the purpose of making experiments and teaching the best method of extraction. In 1814, the progress of these manufactures was suddenly checked by the peace of Europe, which allowed the importation of the colonial sugar into France. New efforts were, however, soon made, and chemistry assisted to simplify the process, (a great desideratum) and discovered the mode of *reviving* animal charcoal, so as to admit of its being repeatedly used, while the improved apparatus aided to economize labor and fuel. The cultivation of the beet has had a most beneficial influence on agriculture. During the last year, more than 80,000 acres of land were planted in beets, producing about one million of tons of the root; and as rotations generally of four crops are adopted, it brought, at least, three millions two hundred thousand acres of land under the highest cultivation. To show the rapid increase of the manufactories, and the quantity produced in France, the following table is given:—

			lbs.		
In 1828,	103	manufactories,	100,000	beet sugar	produced
1831,	200	"	220,000	"	"
1836,	543	"	950,000	"	"
1837,	600	"	1,000,000	"	"

In 1836 France imported only 75,120 tons of colonial sugar, which was a diminution of 15,630 tons in one year, occasioned by the increased production of the indigenous sugar. The French colonies have taken the alarm, and have petitioned for a diminution of duties on the French colonial sugar of 50 per cent, and the French government have determined to impose the same duty on both. England has followed the example of France to a certain extent, by establishing refineries in different parts of the kingdom for purifying beet sugar. Russia has also established large manufactories of beet sugar, and Bohemia, Austria, Hungary and Switzerland, have large beet sugar factories in the most flourishing condition.—The Germans, who first discovered the chrystallizability of sugar in the beet root, made very little progress in its manufacture till 1836, but have finally brought their own discovery, of the extraction of sugar from the beet, to perfection. This has been accomplished by Mr. Schuczenbach, who modified the experiment of Margraf so as to produce, with lesss labor and expense, eight lbs. of white refined sugar out of 100 lbs. of raw beet root; and this improvement the memorialist thinks will, in a short time, exclude all the colonial sugar from European markets, as well as our own, and will also change the condition of millions of men in the colonies. 'The importance of Mr. Schuczenbach's discovery,' says the memorialist, 'is at last proved by chemical analysis and examination of the physiology of plants.' This analysis of the beet root shows that 100 parts of the root contain

86.3 parts of water, 10.0 parts of crystal'ble sugar,
3.2 " fibrous matter, 0.5 " mucilage.

By the new process the water in the beet is evaporated, and there remain only 13.7 parts of dry substances, which consist of the sugar, mucilage, and fibrous matter. The sugar dissolves in cold or warm water almost instantaneously; the mucilage is indissoluble in water, and the fibrous matter is indissoluble and has no injurious influence. The mucilage is the only substance which causes all the difficulty in the extraction of sugar. The principal process consists, then, in the separation of the mucilage from the sugar. Raspai, a French chemist, has made the following microscopic experiments. 'When,' says he, 'a thin slice of the red beet root is brought under the focus of a microscope, it will be observed that the texture of the beet is formed of hexagonal cells transparent, and of a purple color. These cells are crossed by white ones four or five times longer than the purple cells; this tissue of white cells is again crossed by bundles of opaque cylinders of a gray color, through which the spirals are observed. From this it follows, that purple cells enclose the coloring matter and the *mucilage;* and *opaque cylinders* the *sugar* in its *pure state.* Thus the mucilage in the beet root is separated by nature from the sugar, and mixed by the manipulation which caused all the difficulties of the extraction in the old process, when the mucilage was combined with the sugar in grating, pressing, and even in defecation. The new process acts entirely in conformity with the results of scientific investigation, and the whole process is reduced to a single operation, which gives a sure gain of eight per cent of white refined sugar from 100 lbs. of the raw beet root. The beets are now cut into slices, dried before any fermentation can take place, ground to fine powder, so that all the cells are broken apart and mixed with water, which dissolves the sugar before the mucilage begins to swell. The pure uncolored liquor obtained, is evaporated, and the syrup brought into moulds to crystallize. These statements prove the practicability and infallibility of the new improvement, the introduction and adoption of which, in this country, will be of the highest importance to the welfare of its population.

The manipulations at present in Europe are reduced to a process much *simpler* than that of *brewing common table beer*, which can be comprehended and performed by every one. The period is not distant when farmers will produce their own sugar, or at least raise or dry the beet ready for the manufacturers. The memorialist proves that America overbalances with her physical advantages, the low price of labor in Europe, and that she is able not only to provide herself with all the sugar wanted for home consumption, but also to supply other countries. By the adoption of this new branch of industry, he thinks, the sums now paid for imported sugar, viz: about thirteen millions of dollars, would, in a short time, be a clear gain to the country. Its agriculture would be improved, and thousands of acres of exhausted and deteriorated land would be again taken up and improved. To procure the necessary manure for this purpose, the farmer would be obliged to increase his live stock, which would find, during the winter season, plenty of food in the residuum of the manufactory. It would increase the consumption of sugar among the less wealthy, and make their condition of life more comfortable, and of consequence, greatly extend the population. The beet requires a deep soil, sufficiently provided with decomposed manure. An acre of good cultivated land yields, on an average, twenty tons of beet root—or a ton of beet roots yields, when treated after the new method, 180 lbs. of *white refined sugar.*—The cost of manufacturing a ton of beets into sugar would be, at a very high estimate, $6; 180 lbs of refined beet sugar would cost $11, or 6 1-10 cents per lb.—for which we now pay, at the lowest rate, 16 cents. A Mr. Rillieux of New Orleans, has recently invented an apparatus for reducing saccharine liquids, which surpasses any other invention of the kind, not only in simplicity and cheapness, but also in the arrangement in the boiling of sugar, agreeably to the principles of science and economy.

From the New England Farmer.

LUCERN.

The annexed essay is extracted from a French Agricultural Magazine, in the belief that it might be interesting to our readers. Our respected correspondent, John Lowell, Esq., has been successful in the cultivation of this grass, and speaks of its advantages and value, in strong terms of approbation. We can have no higher authority; and as we believe always that "what man has done, man can do," we recommend strongly to all those who have failed, farther trials and longer perseverence. Many have failed in their attempts to cultivate it; and ourselves among the number. The difficulty has been that the weeds have overpowered it. It has been recommended to sow it in drills and hoe and weed it as you would any other drilled crop. The habits of our farmers are utterly averse to all such methods of cultivation; but we are satisfied that the value of the produce would amply repay almost any labor, which it might demand. Of the value of ashes here, commended as a manure, too much cannot be said. One of its pre-eminent advantages as a manure is that it destroys insects and produces no weeds. Lucern demands rich land and clean culture. Old lands, therefore, abounding in the seeds of weeds, or green barn door manure, full of the chaff of the barn floor, must be avoided. We shall consider this subject fully in another place.

H. C.

[*Translated from the French Cultivator, by C. H. B. Breck.*]

On Sowing Lucern.

A good lucern field is an indisputable benefit for a farming establishmens: on the other hand the careful preparation and hard labor which its cultivation demands are expensive; the length of time before it becomes productive, and all the precautions necessary to assure its success, are important and useful to be known.

Lucern (medicago sativa) should be sown generally alone, or in a crop of grain in March or April; or with maize or Indian corn, to be cut for forage. This last will be up enough to receive its first weeding, by means of which the grouud will be smoothed and cleared of all grass and weeds.

Some theoretical farmers prefer sowing lucern with buck-wheat, planted with which, the artificial meadows succeed admirably, and so wait till the month of June. Whatever mode may be adopted, this seed ought to be sown in land well dug, not moist, the lumps of earth well broken to piedes, and previously manured.

In order to succeed, the time when the seed ought to be sown is not a matter of indifference; thus it is well to take advantage of a cloudy day, when it seems likely to rain. The seed should be sown in the quantity of 20 lbs. to the acre, and if it is possible, the harrow or the roller should be passed over it; but one has not always

the power of using all the means of success. Some often fear in passing the harrow over it, that the feet of the oxen or horses employed in drawing, should force the seed to deep into the soil.

If one should undertake to do it with hand rakes drawn by men or women, there might not be time enough; and it may happen that at the moment when the seed is sown, the condition of the grain crops with which it is sown, opposes itself to all these operations; or the land is too wet, or a rain falls on it before we are able to cover the seed in the least, which is always necessary, and without which, besides its becoming the prey to a multitude of little insects, or birds also, it is exposed to be dried up by the sun after having begun to germinate. I avoided all these inconveniences, and all the troubles of raking by a very simple method. I had saved at the farm-houses and at my own, the ashes that had been used for lye. I had them first spread out at home, and when they were dry, I had them carried into a shed, to use in time of need. If I have any lucern to sow, I have recourse to them. I scatter them over the seed, which not only covers it up, but even protects it from the ravages of many insects, or bugs, which the ashes drive off.

After having proved the good effects of the ashes employed in my kitchen garden for different seeds, I have thought it would be very useful for preserving other small seeds in sowing time. It is in order to avoid expense which the use of crude ashes would occasion.—When I have not had a sufficient quantity of ashes for domestic purposes, then I have ordered the head servants to reserve all those which are useful for lye, and have used instead of ashes, loads of sand, which will also, without doubt, cover the seed as well, and without expense; but they will not be so good a stimulant of vegetation, nor afford so good a shelter, or protection to the seeds. Besides, the ashes are so fine and the parts so disunited, that they cover the seed much better. I use ashes also, when I have a plenty, in a great many other cases; but I am bound now to show its use for lucern, because it supplies the place of rye and other cereal grains sowed for the purposes of forage, and for which the head servants use the be t manures, to the injury of the land destined for the production of grain.

Lucern comes up about 15 days before the trefoil, or sanfoin, and at the same time the carnation trefoil that Roussillon calls *farrouch*. When it is well situated to receive the rays of the sun, and when the rains come seasonably, it furnishes successive crops, which constitute a great resource for the nourishment of cattle; it is one of the most useful among foraging plants; and for the production of it, no means of successful cultivation should be neglected.

Penobscot Agricultural Society.

The Committee on crops for 1838, report:—That out of twenty-four entries for premiums on crops, only six competitors appeared in person, or by communications. And your committee award,

To David Crowell of Exeter, the first premium for Spring Wheat of $4,00, he having raised on 162 1-2 rods 42 bushels and 9 quarts.

To E. Pillsbury of Newport, the premium of $4,00 for his crop of Corn, being 195 bushels sound ears, on two acres, besides other good things as per statement.

To Jona. Barnard, they recommend a gratuity of $2,00 for his crop of corn, being 86 bushels of corn on 76 rods.

To Elihu Hayes for his crop of oats of 80 bushels on an acre, $4,00.

To William Grinnel of Exeter, they awarded the premium of $4,00 for his crop of Ruta Baga being 200 bushels on 1-4 of an acre.

To John Barstow of Bangor they awarded the premium of $2,00 for his 1-8 acre of carrots weighing 4325 lbs. equal to 34600 lbs. the acre.

JOHN BARSTOW, } *Com. on*
ORA OAKMAN, } *crops.*

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Statement on Raising Wheat.

I had on 162 1-2 square rods 42 bushels and 9 quarts of wheat, I sowed about 1 1-2 bushels of Stockbridge wheat, to the acre, about the middle of last May, the ground was green sward broke up the year before and planted with potatoes. Had a light crop of potatoes, there was some manure put in the furrow with the potatoes. About one half of the ground the wheat was sowed on, we spread leach ashes, the other half was manure spread on and ploughed in, and the ground harrowed once before the wheat was sown. The wheat washed clean and soaked in brine 24 hours, then dried with slacked lime. After the wheat was up, I sowed 2 bushels of plaster to the acre. No smut.

There was 911 large sheaves bound with single bands.

DAVID CROWELL.

November 23, 1838.

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Statement on Raising Corn.

The following is a true statement of facts relative to the soil, cultivation thereof, and the crops taken from the same by the subscriber in Newport the present season, to wit:—two acres, soil slatey loam, part of it was planted last season with potatoes, and a part was mowed—ploughed it from 12th, to 15th May, and planted before the 20th in the following manner—after harrowing took a small plough and furrowed my rows from 3 to 3 1-2 feet apart, took common barnyard manure put a small shovel full from 2 2 to 1-2 feet apart in the rows, prepared my seed as follows: wet the seed in warm water with a mixture of tar, stirring it sufficient to mix it with the tar, took a sufficient quantity of plaster and separating it, planted it as usual, a few days after planting on examination finding the wire worm was destroying the seed, concluded to plant beans between the hills—at the time of first hoeing put a table spoonfull of plaster to each hill, hoed it three times. When harvested measured 195 bushels sound ears of corn, and twenty bushels beans, and two cords of pumpkins.

E. PILLSBURY.

—

Statement on Raising Corn.

GENTLEMEN:—The undersigned hereby certifies that he has raised this year, 86 bushels of sound corn on 76 rods of ground, cultivated in the following manner. The last season it was sowed to wheat, after the crop was taken off, the stubble was ploughed in. Last spring a small coat of dressing was spread on and ploughed again, then furrowed and manure dropped in the hole—and hoed in the usual manner.

JONA BARNARD.

—

Statement on Raising Oats.

This certifies that I have assisted Elijah Hayes of Exeter in harvesting, threshing and cleaning oats that grew on one acre of land, there was 80 bushels, average weight 34 lbs. per bushel. G. S. HODGDON.

The above named acre of land is a loamy soil taken from the pasture in 1836, manured with 20 loads of barnyard manure to the acre, planted to corn, in 1837 raised a crop of oats in 1838, oats again without the addition of any manure since 1836.

ELIHU HAYES.

—

Statement on Raising Ruta Baga.

Statement of the manner of raising my ruta baga turneps. The previous crop on the ground was turneps on about 2-3 of the ground, the other third potatoes, it was ploughed in the fall and in the spring it was ploughed and harrowed, and furrowed for drills about two feet and a half apart. I then manured one half the piece with manure from my hogpen, the other with new manure from my barn, and turned two furrows together over the dung, and sowed my seed one ounce to the 1-4 acre. I sowed turneps about the tenth of June, and when they were large enough, I transplanted them where it was necessary. Hoed twice. Harvested about the 25th October, and measured two hundred bushels, potatoe measure. The part dressed from the hog pen produced the largest crop, although the quantity was not larger than on the other part. The whole being 3 cords. Expenses of growing and harvesting as follows:

Hauling manure and ploughing twice,	$2,00
Planting one day,	1,00
Hoeing twice, three days,	3,00
Harvesting, 3 days,	3,00
Seed,	8
	$9,08

WILLIAM GRINNELL.

Exeter, Nov. 10th, 1838.

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Statement on Raising Carrots.

The subscriber offers for premium one eighth of an acre of carrots grown the present year, at Mount Hope, in Bangor. The land is a dry loam. Last year it was liberally dressed with a compost composed of two-thirds Swamp Mud, and one third stable dung, and planted with carrots and ruta bagas, and produced the carrots for which the premium was awarded. Last spring it was dressed with Swamp Mud, at the rate of 16 cords to the acre, with which was mixed, in its caustic state, a cask of lime to about 5 cords of mud. The seed was sown about the first of June, in drills, one foot apart. The ground was hoed twice during the summer and no special pains taken with reference to a premium. The insects having destroyed so many of the young plants, that the land would have been planted with something else; but for the lateness of the season. They were harvested the middle of October, and weighed in the scales 4325 lbs. equal to 34,600 lbs. to the acre.

The expenses of growing and harvesting the Carrots, may be estimated as follows:—

Hauling mud and ploughing,	75
Planting,	1,50
Hoeing twice,	2,00
Harvesting, two days,	2,00
	$6,25

JOHN BRASTOW.

Bangor, Nov. 10th, 1838.

From the Ohio Farmer.

ON GRAFTING.

MR. EDITOR—I have often thought that I might make myself useful to some of my brother farmers by writing a short essay on the subject of grafting fruit trees. Having a few hours leisure, I have thrown together the following remarks which are at your service if you think they are worth publishing. The principal fault I have discovered in the many descriptions of the process of grafting that I have read, is, that they do not sufficiently describe all parts of the business, and the farmer who attempts to graft after their direction will work wrong in some necessary part of the process that they have not described at all. I have practised grafting by the following method about fifteen years, and have set several thousand scions each year. I set at the rate of from 250 to 400 scions in a day, and do not lose more than five out of a hundred.

CUTTING SCIONS.

Scions may be cut from the time the leaves fall from the trees in autumn till the buds begin to open in the spring. If possible cut your scions yourself from trees that you are acquainted with, or procure them from persons you can depend upon; a great amount of time and money has been expended in cultivating fruit of an inferior quality; this discourages the owner and his neighbors from continuing the business of grafting when the whole fault consisted in a careless or improper selections of scions. It should always be remembered that it costs no more to raise the best fruit than it does to raise the worst. For example: my own orchard is wholly grafted and I have this year sold the best kinds of apples for 75 cents per bushel, and the worst kinds for 12 1-2 cents, yet the latter has cost me as much as the former. In cutting scions select thrifty shoots of the past summer's growth; cut them off with a knife about three-fourths of an inch below the circle where the past year's growth commence. Do not take scions that have been much shaded, or from the interior of a tree top however thrifty they may look, neither the wood nor the buds are sufficiently matured to render it safe to use them. Tie each sort in a bunch by itself and cut a mark on the buts of one or two scions—the numeral letters are the most convenient marks—make the same mark in your book, or on a sheet of paper and annex the name of the fruit; if you graft in an orchard, the mark should be cut in the bark of the tree, if in a nursery, cut the mark on a stake to be set at the end of the row or by the tree grafted. By this means you will never be at a loss for the name of the fruit.

The best time to cut scions is the first of March. The object is to cut them before the sap begins to circulate; yet they may be cut and used with a reasonable degree of safety till the buds begin to open. Those cut after the sap begins to circulate cannot be transported or kept as safely as those cut earlier. I keep my scions in the following manner:

I select a dry piece of ground and dig a square pit large enough to contain my scions and about two feet deep, I then lay a board in the bottom and set boards about sides sufficient to prevent the scions from coming in contact with the earth, lay a board over the top, and then cover the whole with earth about a foot thick—lay boards over the mound thus formed to turn off the rain. Secured in this manner I have never failed in keeping my scions in the best order till they were wanted for use. If, however, the water should stand in the pit even for a short time, the scions will be spoiled.

SETTING THE SCIONS.

If you intend to graft in a nursery you may safely graft all the trees that are over half an inch in diameter at the surface of the ground; those less than an inch in diameter I prefer grafting at the surface, those of a larger size I graft at such distance above the ground as will give a stump of about three-fourths of an inch in diameter.

The best time to graft in an orchard is the second or third year after the trees are transplanted. If they are grafted the first year, and a dry season ensues, they are liable to perish the latter part of the season. If the tree is less than an inch in diameter, at from five to six feet from the ground, cut off the whole top and set two scions in the stump; if they both live one may be cut away the second year. When you graft large trees select the leading and best branches and cut them off where they are from three-fourths of an inch to three

inches in diameter, and in such positions as will form such a top as you prefer when they take the place of the natural top. The tools you will need are a saw, (a common sash saw is the best,) a good pruning or large pocket knife and a wedge for opening the cleft in the stumps. Let the wedge be made of soft iron about six inches in length, make it round and platted at one end for opening the cleft, and with the other you can drive the knife for splitting the stumps. Saw off the tree or branch in a suitable place where it can be split; smooth the top with your knife, then split the stump by laying your knife across the center and driving it down with the iron wedge the whole width of the blade; withdraw your knife and insert the wedge so as to open the cleft enough to admit the scions. If the stump is as much as three-fourths of an inch in diameter, I would recommend that two scions be always set in it, one on each side of the stump. If they both live one may be cut away the second year if the owner prefers. I usually leave them both to grow if set in the top of a large tree. Prepare your scions by cutting the lower end in the form of a wedge, let the wedge be about three-fourths of an inch in length, and that side which is to be placed next to the centre of the stump should be a trifle thinner than the other, in order that the bark of the stump and scion may come in complete contact when the iron wedge is withdrawn which is the object to be attained. Cut the wedge of your first scion at the circle where the last year's growth commenced. There is usually a slight bend in the scion at this place, and you should cut the wedge in such a manner as to leave the outside of the bend on the outside of the stump—cut off your scions at such length as will leave not less than two nor more than three good buds above the top of the stump. Cut the wedge of your next scion at the first good bud above where you cut off the first, and cut it in such manner as to leave the bud uninjured, and about two-thirds the distance from the lower point of the outside; leave the bud on the out side of the scion; this bud will often grow when those above it will fail The scion will receive nutriment from the stump only at such points where the inner coat of the bark of the stump comes in contact with the inner coat of the bark of the scion. In preparing the scion in the manner above described, there will usually be a slight curve in the line of the bark on the side of the scion. In setting the scion place the lower point a trifle within the outer surface of the bark of the stump, and see that the inner coats of the bark of the stump and scion come in actual contact at the top of the stump. By this method you will generally succeed in bringing the inner coats of the barks in contact in three places out of four; if they agree but in one place the scion will probably live. If from the size of the stump you apprehend that the pressure may be too hard on the scion it may be prevented by inserting a small wooden wedge in the cleft at the top of the stump before the iron wedge is withdrawn. Withdraw the iron wedge carefully so as not to alter the position of the scions.

WAX FOR GRAFTING.

Prepare your wax by melting seven parts of rosin, two of beeswax, and one of tallow together. Pour this when melted into cold water, say a pound at a time, and having rubbed your hands thoroughly with lard, press and work the wax in your hands till it is pliable, and the water forced out it is then ready for use. Wax prepared in the above manner will remain on the trees three years and protect the stumps from the weather. If a larger proportion of beeswax or tallow are used, although the scions will grow, the wax will soon wash off and not protect the stump a sufficient length of time. The wax when used must be sufficiently warm to spread easily. I always spread it with my fingers, having first rubbed them with lard to prevent the wax from adhering to them. I cover the top of the stump, and the split on both sides as far as it extends; the wax on the top of the stump should be the thickness of a cent, it may be somewhat thinner on the sides. Great care should be used to make the cleft both air and water tight, and if once made so with the wax, it will remain tight through the year.

The time for grafting will depend much on the forwardness of the season. I think the best time is when the buds first begin to open. Scions will live set any time after the sap begins freely to circulate, and till the apples on the trees are as large as musket balls, yet those set late, not having the advantage of the whole season, will not grow as much the first year.

PRUNING THE TREES.

When small trees are grafted the whole top may safely be removed at once; But I think it bad policy to remove more than one-third of the top of a large tree in one year. There will usually be enough of the top of a large tree cut away the first year by grafting; let half the remainder be cut away the following year, and the third year finish the pruning. The young sprouts should all be taken off yearly, especially those near the young scions.

I have above described the process I make use of in grafting—those who will faithfully try it, I have no doubt, will be satisfied of its usefulness.

Yours, very respectfully,

SIMEON FULLER.

Willoughby, Ohio, Nov. 26, 1838.

Norton's Seedling Grape.

The true Norton Seedling, as presented by Dr. Norton, is a remarkably *sugary* grape, of medium sized berry, compact moderate sized bunch; the fruit without pulp, very juicy, thin skin and rich. It is a black grape, covered with bloom. The Doctor states that the vine is a great and never failing bearer; the fruit not subject to rot, and all on the bunch ripening at the same time. It is ripe about the 15th of September, and has kept well till near the 25th of October.

The Doctor also presented me samples of the Cunningham Prince Edward, and the Woodson grapes, both excellent fruits; the former a black grape, found wild in Prince Edward County, Va.; the latter reddish purple, and also found wild in Virginia.—*Farmer and Gardener.*

Emigration.—The German (Pa.) Paper, of Jan. 1st. says:

"We have received letters from Bremen, wherein it is mentioned, that a party consisting of 700 persons, are in Bremenhaven, ready to emigrant, to the United States. They are Lutheans, styling themselves "the old Lutheran Congregation," who left their native country, Saxony on account of religious intolerance, and intend to settle in one of the Western states. They are an industrious set of people, and are said to be in possession of rising half a million of dollars. The party consists principally of farmers and mechanics, including sixteen ministers of the gospel and four school masters.

Effects of the Drouth and Carelessness.—The St. Louis Gazette contains a list of nineteen steamboats, sunk and lost in the Western waters, by running against snags and other obstacles. The value of these boats is estimated at $250,000. Our Western friends are suffering severely from the total obstruction of navigation. A friend writes us from Louisville, that a lot of 15 hhds. Louisville sugar sold at the enormous price of 25 cents per lb.

Silver—We saw, says the Raleigh (N. C.) Register, a few days since, in possession of Mr. Rosewell King, of Davidson county, an ingot of silver, worth about $40, obtained from his mine recently discovered, the richness of which is almost unparalleled. Some of the ore yields 98 per cent. of pure silver.

Education Statistics.—New York city has 83 flourishing psblic shools, with 17,000 pupils. Yet there are supposed to be near 20,000 children, between five and fifteen years of age, who do not. from neglect of parents and guardians, attend any school.

The lead mines in Rossie, St. Lawrence county, have yielded during the past year, 3,347,453 pounds, which, at five cents per pound, amount to $167,373 05.

Annual Agricultural Meetings.

☞ The New York State Agricultural Society, and the New York State Agricultural Convention, are both to meet in Albany, on the FIRST TUESDAY IN FEBRUARY next. The Society will meet in the City Hall, at 11 A. M.; the Convention in the Assembly Chamber, at 4 P. M.

ROCHESTER MARKET, *February* 1, 1839.

Wheat,	per bu.		1,50
Rye,	"	"	1,00
Barley,	"	"	66@75
Corn,	"	"	75@81
Oats,	"	"	38
Peas,	"	"	1,00
Beans,	"	"	1,00
Potatoes,	"	"	38
Apples,	"	bbl.	1,25
Cider,	"	"	1,50
Butter,	"	lb.	16@20
Cheese,	"	"	7@9
Beef,	"	cwt.	4,50@5,50
Pork,	"	"	7,00@8,00
Hay,	"	ton,	7,00@11,00

Books for Farmers.

CHAPTAL'S Agricultural Chemistry, price $1 25.
A Treatise on Cattle, their breeds, management and diseases, price $2 50.
The First Volume of the Genesee Farmer, bound, price $1 50.
The Farmers' Own Book, price 50 cents.
The American Farriery, price 75 cents.
Feb. 2. D. HOYT.

Rochester Seed Store, 1839.

REYNOLDS & BATEHAM, the proprietors of this well known establishment, respectfully announce that they have again on hand a fine assortment of English and American SEEDS, of the latest growth, including all the most valuable and newly introduced articles of garden and field culture—Grain, Grass, Esculent Vegetable, Tree, Shrub, Herb and Flower Seeds. Also, a large collection of Garden Tools, Agricultural and Horticultural implements, Books, &c. and a splendid collection of Green House Plants.

The liberal and constantly increasing patronage which this establishment has received during the past four years, is a gratifying evidence that its usefulness is in a measure appreciated by an intelligent community, and that the efforts of the proprietors to give satisfaction have not been unsuccessful. Great pains are taken to have all articles sold at this establishment of the very best quality, and the proprietors hope, by unremitted exertion, together with their experience in the business, and facilities for growing and importing supplies, to merit the fullest confidence of the community, without which they do not ask or expect a continuation of its liberal patronage. Merchants and others supplied with superior Seeds either by weight at wholesale, or neatly put up in small papers for retailing, at prices which will afford them a handsome profit. Small Assortments will not be furnished on commission, but an agency is, or will be established in each of the principal villages in Western New York, where a full assortment will be left for sale.

A Catalogue of 42 pages may be had on application.

REYNOLDS & BATEHAM,
No. 3 & 5 Arcade Hall, Rochester, N. Y., Jan. 1st, 1839.

Morus Multicaulis Cuttings.

THE subscriber can furnish 10,000 genuine Morus Multicauli Cuttings if applied to soon. E. H. MIX.
Avon, Livingston Co., N. Y. jan26 3m

"THE BOOK OF FRUITS," by Robert Manning, of Salem, Mass. Also—
"The American Flower Garden Companion," by Edward Sayers, Boston—price 75 cents each. For sale at the Rochester Seed Store.
Jan. 20th, 1839. REYNOLDS & BATEHAM.

Morus Multicaulis.

FOR SALE.—A few hundred very fine *genuine* Morus multicaulis Trees *not trimmed.*
ALSO—10,000 cuttings of do. H. T. ROGERS, 17 Arcade,
Rochester, Jan. 7, 1839.—jan 5-tf or at the Green-house.

1000 Dollars Wanted.—A Hint.

THERE is more than one thousand dollars owing us from distant customers, mostly in small accounts, which have been standing from four months to four years. And lest some of our dilatory friends should think that we have forgotten them, or that their account is too small to be regarded, we would inform them that we have debts to pay too, and in order to extend our business and do justice to others, we must insist on more punctuality on the part of some of our customers. "Do you take?"

REYNOLDS & BATEHAM.
Rochester Seed Store, Jan. 1st, 1839 jan 5-2t

WM. PRINCE & SONS will make sales of trees and cuttings of the genuine Chinese Morus multicaulis, Morus Expansa, Alpine, Broussa, Canton, and other varieties, deliverable to the purchaser at such period in the spring as is convenient to them, and will enter into contracts accordingly. Prices and terms for the trees and cuttings will be forwarded to all who may apply for them by mail, as well as prices of Silk Worm Eggs, Mulberry seed, &c. The Multicaulis Trees are remarkably vigorous, and as we first imported the genuine tree, purchasers are sure of obtaining the true kind. It is from this cause and from the great attention paid by them, that the trees they have sold have given universal satisfaction.
Flushing, near New York, Dec. 26, 1838. jan 5-8t

For Sale.

A SMALL FARM, finely situated, and of uncommon productiveness, near a large village on the Erie Canal, and admirably adapted to the dairy business and marketing. For further particulars, and terms, inquire at this office. Dec. 29—tf

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting. which he will sell on the most reasonable terms.
April 15, 1838. SAMUEL MOULSON.
N. B. Cash will be paid for a few thousand two years old APPLE TREES.

Genuine Morus Multicaulis.

THE subscriber has still for sale, one thousand genuine Morus multicaulis, of thrifty growth and untrimmed. They are choice trees, selected for their size, and will afford a large quantity of cuttings. ASA ROWE.
Greece, October 27th, 1838.

Monroe Horticultural Garden and Nursery.

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Paeonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer
April 1, 1838. ASA ROWE.